The Sewall Papers Second Article.

The second volume of the diary of Samuel Sewall, published by the Massachusetts Historical Society, includes the period from Jan uary, 1700, to April, 1714. With regard to this portion of the journal, it is evident that the friendly relations of Judge Sewall's family to that of Gov. Dudley embarrassed the former alike in his official position as a magistrate and in making entries in his diaries concerning matters as to which they were occasionally at variance. The fact that Sowall also drew upon himself the hostility of Cotion Mather, who with his father, the President of Harvard College, was in violent feud with Dudley, helps to indicate the perplexities of the Judge's situation at this epoch. Much light is thrown upon this controversy by three rare pamphlets which are reprinted in this volume. To these politi cal dissensions we shall make no further ref erence, however, preferring to confine our selves in this notice to such extracts as will best illustrate the manners of the time.

Under date of Feb. 6, 1700, we find a cursory entry which is interesting because it relates to the famous Capt. Kidd: "A Council is held at My Lord's. The Advice of Councillors asked about sending the Pirats on Board. I motioned that by the time the Prisoners could be got from N. York Conceticut, Rode-Island, the Assembly might sit if his Lordship saw meet, and they would willingly rid themselves of them. Governor seemed displeased the wished to send them to England for triall. Governor mentioned Kid, Gillam, Bradish, Witherly to be sent aboard presently for better security. Council voted to leave it to the Governor's dis eretion whom to send aboard. I think only I. Col. Townsend, and Capt. Bylleld were in the negative. I said I was not clear in it. The grounds I went upon were because I knew of no power I had to send Men out of the Province. Capt. Byfield said He was for their going aboard; but reckoned it was not so safe to send them presently as to keep them in Goal (sic). Voted also the Treasure to be delivered to such as the Governor should appoint." The meagreness of Sewall's allusions to this matter is disappointing. The Council of which he speaks was, of urse, held in reference to the famous pirate Capt, William Kidd, whose memory is stamped indelibly upon the popular imagination in New England and New York. It appears, from some facts collected by the editor of this volume, that Kidd was licensed May 16, 1691, at New York, to marry Mary, widow of John Oort, and that about three weeks afterward he was commissioned by Bradstreet to attack a privateer then on our coast. He probably sailed between New York and England for some years. and, becoming acquainted with Col. Livingston, Lord Bellomout, and others, he made an agreement to go out to the East Indies as Captain of a lawful privateer to suppress piracy. This was in October, 1695. Here he turned pirate himself, making his rendezvous on the coast of Madagasear, and capturing native vessels. After a time he returned to Hispaniola, where he left his ship and came to New York in a sloop, whence he proceeded to Boston in June, 1699 After an examination he was committed a close prisoner with divers of his crew. Sewall has recorded (toward the close of the first volums of these papers) that by the aid of a woman two of these men escaped in June, and were recaptured in October. Bellomont says that "he found that the jailer was Bradish's kinsman, and he confessed that he and one of his crew went out of the prison door." In November, 1699, Bellomont wrote home: "These pirates I have in jail make me very uneasy for fear they should escape. would give £100 they were all in New-At his request, as there was no gate." provincial law for punishing piracy with death, a frigate was sent for the prisoners, and they sailed in February, 1700. Kidd was tried for piracy and for the murder of one of his crew. and being found guilty, was executed. The whole affair was brought into politics. Not

only was Bellomont, one of the original owners of Kidd's vessel, now in high position, but Lord Chancellor Somers and some other distinguished noblemen were sharers in the enterprise, and the King himself was to have had a tenth of the profits. When Kidd was captured at Boston the searchers found a bag of gold dust and ingots worth £1 000 and a bag of On information they sent to Mr. Gardiner of Gardiner's Island in Long Island Sound, and obtained gold, silver, and jewels left there by Kild worth £4,500, and total capture was thought to be worth £14,000. ship, and to St. Thomas and Curacoa, he would which no one else could recover. Referring to ship off the Iron chest of Gold. Pearls, etc., forty Bails of East India Goods, thirteen hogsheads, chests, and case, one Negro Man and Wether was doubtful in the morning, which made us irresolute; but at last we set about it and accomplished it very happily. I look upon it as a great mercy of God that the Storehouse has not been broken up, and no fire has hap-Under date of June 19, 1700, we find an allu-

sion to the institution of negro slavery, which shows that on one most important subject Judge Sewall was far in advance of his contemporaries: "Having been long and much disantisfied with the Trade of fetching Negroes from Guinea, at last I had a strong Inclination to Write something about it; but it wore off. At last, reading Bayne's Commentary on the Ephesians about servants who mentions Blackamoors, I began to be uneasy that I had so long neglected doing anything. When I was thus thinking in came brother Belknap to show me a Petition he intended to present to the General Court for the freeing of a Negro and his wife, who were unjustly held in Bondage, And there is a Motion by a Boston Committee to get a Law that all Importers of Negroes shall pay 40s, per head to discourage the bringing of them. And Mr. Cotton Mather resolves to publish a sheet to exhort Masters to labor for their conversion, which makes me hope that I was called of God to Write this Apology for them." The apology mentioned was a curious anti-slavery tract published by Sewall, June 24, 1700, and reprinted in this volume. The reader may like to see two or three extracts from this colonial antetype of Garrison's Liberator. "Tis pity." he says, there should be more Caution used in buying a horse than there is purchasing Men and Women, when as they are the Offspring of God. . And seeing God hath said. 'He that Stealeth a Man and Selleth him, or if he be found in his hand, he shall surely be put to Death-this Law being of Everlasting Equity wherein Man Stealing is ranked amongst th most atrocious of Capital Crimes, what lander Cry can there be made of that Celebrated warning, careal couplor. * * * How horrible is the Uncleanness, Mortality, if not Murder, that the Ships are guilty of that bring great Crowds of these miserable Men and Women. Methinks when we are be meaning the barbarous Usage of our friends and kinsfolk in Africa the refers, of course, to the enslavement of Christians by the Barbary powers), it might not be unseasonable to inquire whether we are not cuipable in forcing the Africans to become slaves amongst ourselves." To the familiar objection that "the negroes were brought out of a pagan country into places where the Gospel is preached."
Judge Sewall's answer is that "Evil must not magistrate in the public street. Subsequently, be done that good may come of it. The extraordinary and comprehensive Benefit accruing with the Mathers, but the reconciliation had to the Church of God and to Joseph personally did not rectify his brethren's hate of him." His conclusion is that, "all things considered, it would conduce more to the Welfare of the Prov-

It appears that the young men of the colony were disposed to follow the fashions of Paris | President of Harvard College and Mr. Pemberand London, and to substitute a wig for their I ton came to Dinner I was in my apartment,

than to have Slaves for Life."

ince to have White Servants for a Term of Years

own hair. Against this worldly vanity Judge ewall sternly set his face, as will appear from he following entry under date of June 10, 1701: Having last night heard that Joshua Willard had cut off his hair to very full head of hair) and put on a wigg, I went to him this morning. Told his Mother what I came about and she called him. I inquired of him what Extremity had forced him to put off his own hair and put on a wigg? He answered none at all. But said that his Hair was streight, and that it parted behind. Seemed to argue that men might as weil shave their hair off their head as off their face. I answered that men were men before they had hair on their faces (half of mankind have never any), God seems to have ordained our Hair as a Test to see whether we can bring our minds to be content to be at his finding; or whether we would be our own Carvers, Lords, and come no more at Him, If disliked our Skin or Nails, 'tis no Thanks to us that for all that we cut them not off; Pain and danger re strain us. Your Calling (I said) is to teach men self Denial. This (cutting off your hair) will be displeasing and burdensome to good men: and they that care not what men think of them care not what God thinks of them. . . Prayed him to road the Tenth Chapter of the Third Book of Calvin's Institutions. * Told him of the solemnity of the Covenant which he and I had lately entered into, which put me upon discoursing to him. He seemed to say would leave off his Wigg when his hair was grown. I spake to his Father of it a day or two after; He thanked me that had discoursed his Son, and told me that when his hair was grown to cover his ears he promises to leave off his wigg. If he had known of it would have forbidden him. His Mother heard him talk of it, but was afraid positively to forbid him lest he should do it and so be more faulty."

Here and there we find in the diary some notes bearing on Judge Sewall's physical condition and domestic habits, for instance: Dec. 30, 1702-I was weighed in Col. Byfield's Scales: weight One Hundred, One Half, One Quarter wanting 3 pounds, 6. c., 193 pounds Nott. Col. Byfield weighed Sixty-three pounds more than I; had only my close coat on. The Lord add or take away from this, our corporeal weight, so as shall be most advantagious for our Spiritual Growth." In the margin Judge Sewall records with some complacency that on 'July 31, 1721, I weighed 228 pounds by Cousin Sam Sewall's Scales." Under date of Jan. 24. 1704, we read: "Took 24 Shillings in my pockets, and gave my wife the rest of my cash. £4. 3s. 8d., and tell her she shall now keep the Cash: if I want I will borrow of her. She has a better faculty than I at managing Affairs: I will assist her, and endeavor to live upon Salary; will see what it will doe. The Lord

On April 24, 1704, Judge Sewall jots down that he "gave Mr. Willard the first News-Letter that ever was carried over the River. He showed it to the Fellows of the College." The allusion is to the Boston News-Letter, the earliest Anglo-American newspaper, which first appeared on the date mentioned in the diary, and continued to be published until 1776 on the evacuation of Boston by the British troops. Although only issued weekly, it answered the needs time, and even with difficulty secured a supporting constituency. No price for subscription or for a single copy is named, but "reason able terms" are offered to "all persons in Town or Country who shall agree for the weekly with John Campbell, Postmuster." The first number, which was on a half sheet small folio, contained but one advertisement, and that was the publisher's. A few matters of public intelligence, the announcement of a sermon preached by Mr. Pemberton on "Doing One's Own Business," and the fact that "the Rev. Mr. Lockyer dyed on Thursday last," make up

the contents of this first American newspaper.

What great sticklers the colonial authorities

were for respect and obelsance may be seen

from Judge Sewall's account of the offence

wagoners to give him, not a part, but the

whole of the road. The trivial occasion of the

dispute only brings out more fully the almost

insane rage of Dudley, and presents us with a

offending farmers. Trowbridge and Winchester

were reputable citizens, and Sewall, with his

fellow Judges, manifestly felt that justice was

on the side of the defendants. The evidence

lively picture of colonial manners. The two

taken by Gov. Dudley at the refusal of two

seems to show that no offence was meant, but that a casual accident in a public road was rendered a serious matter solely by the intolera ble arrogance of one of the parties. According to the affidavits filed in this curious case, Gov. six bales of goods, one valued at £2,000. The | Dudley had set out in a chariot and four on a journey from Roxbury to New Hampshire Kidd afterward told Lord Bellomont that if he | and when only about a mile from home met was allowed to go to the place where he left his | two carts in the road loaded with wood. The wagoners were driving slowly in the path on recover £50,000 to £60,000, hid by himself, their right hand, in order that the coach might take the better path on the east side of the lane. the treasure taken with Kidd, Judge Sewall | But, according to Trowbridge, who testifies notes in his diary, under date of Feb. 28; "We | under oath, "the Governor's son came riding up, and bid me clear the way. I told him I could not conveniently do it, adding that it was easier for the coach to take the other path than Venturo Resail, an East Indian, born at Ceilon. for me to turn out of that; then did he strike my horse, and presently, alighting, drew his sword and told me he would stab one of my horses. I stepped betwixt him and my horses. and told him he should not if I could help it he told me he would run me through the body, and made several passes at me with his sword which I fended off with my stick." Then came up John Winchester, who was behind with a loaded cart and who gives the following account: "I, John Winchester, hearing Mr William Dudley give out threatening words. asked him why he was so rash; he replied: 'This dog won't turn out of the way for the Governor.' Then I passed to the Governor, with my hat under my arm, hoping to moderate the matter, saying: 'May it please your Excelency, it is very easy for you to take into this path and not come upon us.' He answered: Sirrah, you reque or rascal I will have that way.' I then told his Excellency if he would but have patience a minute or two I would clear that way for him. I turning round, and seeing Trowbridge's horses twisting about, ran to stop them to prevent damage; the Governor followed me with his drawn sword and said, Run the dogs through, and, with his naked sword, stabbed me in the back. I facing about, he struck me on the head with his sword, giving me there a bloody wound. I then, expecting to be killed dead on the spot, to prevent his Freeliency from such a bloody act in the heat of his passion, catched hold on his sword, and it broke; but yet continuing in his furious rage, he struck me divers blows with the hilt and piece of the sword remaining n his hand, wounding me on the hands therewith. In this transaction I called to the standers by to take notice that what I did was in defence of my life. Then the Governor said, You lie, you diveil,' repeating the same words divers times. Then said I, 'Such words don't come a Christian.' His Excellency replied A Christian, you dog! a Christian, you diveil! I was a Christian before you were born! Then his Excellency took up my cart whip and struck me divers blows, whereupon I cried, 'What flesh and blood can bear this?" It appears that Gov. Dudley was intensely angry with Sewall and his fellow Judges because they would not throw the farmers. Trowbridge and Winchester into pail, but accepted buil for their appearance at the next ferm of court. As a matter of fact, there was no case against the men, and they were ultimately discharged without any punishment whatever. We have said that Judge Sewall was for some ime on extremely bad terms with Increase

Mather and his son Cotton Mather. The lat-

however, Sewall seems to have made peac

the effect of embroiling him with another

clergyman, the Rev. Mr. Pemberton. How

much there was of the old Adam in the Puritan

of that day, and how little the elect respected

the amenities when they were angry will ap-

When the

pear from the record of an encounter which we

find under date of Nov. 28, 1710;

Mr. Mayhew and my Son with me. The President and Mr. Pemberton being come to us, Mr. Pemberton quickly began to say: 'What, you been have holding a Court to-day!' Had it over again: I was a little amused at the word Court: nowever. I began to relate what had been done. Mr. Pemberton, with extraordinary vehemency, said (capering with his feet). If the Mathers ordered it I would shoot him throw. I told him he was in a passion. He said he was not in a Passion. I said it was so much the worse. He said the Fire from the Aitar was equal impartial. Upbraiding me very plainly, as I understood it, with Partiality. The President said The Governor was barbarously treated (meaning Dr. Cotton Mather's letter to his Excellency). I answered That was put to the Council. Mr. Mayhew told me afterwards that I said his Carriage was neither becoming a Scholar nor Minister. The Truth is I was surprised to see myself insulted with such extraordinary Fierceness by my Pastor just when Thad been vindicating two worthy Embassadors of Christ (his own usual Phrase) from most vil-lainous Libels." Mr. Sewall goes on to chronicle that "we went to Dinner. I sat next to Mr. Pemberton and asked him to crave a Blessing: he also returned thanks, the President declining it. Mr. Seargeant came into our Company. The President walked on his right hand to the Council Chamber; I and Mr. Pemberton went next. In the Way Mr. Pemberton charged me again. I was grieved and said, 'What, in the Street!' He answered, 'Nobody hears,' But Mr. Seargeant heard so much that he turned back to still us. Mr. Pomberton told me that Capt. Martin, the Comadore, had abused him, yet I took no notice of it. I answered, 'You never laid it before me.' He said, 'You knew it.' I said, 'I knew it not.' He said Capt. Martin called him Bascul in the Street, and said had it not been for his coat he would have caned him. Mr. Pemberton said, I excluded him, or he was excluded, from dining with the perior Court by the invitation of Capt. Murtin." Judge Sewall tries to explain how it had come to pass that Capt. Martin was invited. He reminds Mr. Pemberton that the "Fleet was a chief Mean of Taking Port Royal Capt. Martin was Comadore of that Fleet, and therefore could not be separated from the General. A personal Resentment of what had passed before the going to Port Royal ought not to make a Balk in a Public Invitation after God's granting Success; which had been so much and Publicly prayed for; and Thanks to God Returned. And if the Justices had not sent for Capt. Martin I can't tell what might have been made of the Offence. 'Tis difficult meddling with Captains of Frigats. Reasons of State require the overlooking many grievous Things. The Sons of Zerviah were too hard for David. his calling them to account. He was fain to leave Josh to the Reign of Solomon. These Things made me pray Earnestly, and with great Concern, that God would vouchsafe to be my Shepherd, and perform for me what is mentioned in the 23. Psalm, that He would no leave me behind in my Straglings, but bring

me safely to his Heavenly Fold." The latter pages of that part of the diary con tained in this volume give an interesting account of a journey made by Sewall to Martha's Vineyard "for the Regular Disposing of the Land lately purchased by the Honorable Corparation for the Service of the Indians there. The Sewall papers furnish abundant evidence of the zeal and devotion which their author gave to his official duties as a Commissioner of the English corporation having in view the civilizing and converting of the Indians. Unlike the majority of his New England contemporaries, he seems to have exhibited a most warm, humane, and Christian concern in everything that was attempted or done for the welfare of the natives. As he came into man hood just at the period when the havoe massacres, and burnings on the frontiers King Philip's war" threw all the coionists of New England into a panie of dismay, he, of course, sympathized with and took part in the warlike measures to which the community had recourse, either for protection or vengeance. From the expe riences of that fearful crisis in the fortunes of New England is to be dated a manifest change in the feelings of the great mass of the people toward the Indians, precisely like that which showed itself nearly a century afterward among the frontier settlers of Pennsylvania and Virginia during the atrocities of Pontiac's war A degree of toleration and commiseration had previously been evinced toward the Indians and the General Court of Massachusetts had enacted some laws for their protection and just treatment. Some considerable interestthough by no means so extensive and sympathetic as has been often supposed-was taken Gookin and others of the most devoted laborers in this work do not conceal their regret that so few of their brethren were ready and hopeful in it, and that from many they received slight and discouragement Still the work had progressed-furthered mainly, however by aid from Englandand showed some fair prospect of success, till the dread crisis just referred to came with its appalling shock upon the people, especially those dwelling in the farming towns of the frontiers. From that period an embitterment of feeling, contempt, disgust, and race became widely entertained in New England against the Indians, and, as has since been noticed on our western frontiers with each successive belt of advancing civilization, those who have had experience of Indian warfare have come to regard the natives simply as vermin and wild beasts to be exterminated. While such, however, was the prevailing sentiment of the community. Sewall himself still retained a place in his feelings for considerate pity and for works of mercy. Mention is made in this volume of one Benjamin Larnell, an Indian young man, in whom Sewall took such an interest as to provide for his education, and to send him to Harvard College: but he proved a failure and died early in his course.

The editors of these papers point out that from Sewall's memoranda, from the records of the Commissioners of the United Colonies. from the small publications by Ellot, the Mayhews, Gookin, and others, relating to their labors in behalf of the Indians, may be gathered nformation of a kind likely to surprise those who are but slightly informed about the history of those times. We learn from these sources to how great an extent the work which was done here for the Indians, and for which the colonists have had the credit, was in reality prompted, encouraged, sustained, and actually paid for by influence and funds from abroad In point of fact, no vigorous and earnest efforts were made here in behalf of the Indians till rebukes and repreaches from the friends of the colonists in England, censuring the indifference and the neglect of the colonial magistrates and ministers in the cause, had provoked them to action. Then the corporation formed in England in Cromwell's time, and revived by Charles II., furnish ed generous pecuniary grants and salaries to carry on the work. Incidentally the New England colonies, and Harvard College in particular, received valuable helps from this corporation through contributions not specifically or permanently limited to the Indians. Thus the first edifice of brick in the College Yard at Cambridge was built from the funds of this society, and intended for the accommodation of twenty young Indian scholars; but it very soon served other uses. A printer, fonts of type, and paper were sent over by the society for printing Elio 's Bible, primers, catechisms, tracts, &c., and Ellot him self, together with other preachers and school masters to the Indians, received regular salaries from England. As the Indian village 1 Natick was about reaching its most hopeful stage, the society sent over a cargo of tools, household and farm implements, and so forth. The vessel was cast away on Cohasset Rocks, but some of its valuable cargo was The pious and strong-hearted Eliot cheered his neophytes in their dismay over such a baffling Providence by telling them tha though Satan, in his rage to withstand a holy enterprise, had wrecked the vessel, God, in His

mercy, had saved some of her lading. The forlorn condition of the scattered rem

nants of the Indian tribes in the region visited by Sewall officially may be taken as illustrating the fate of many others of the aboriginal race at the time, and of those that survived, till all of them vanished from the soil of New England, except the few still left on the Penobscot, in Westerly, Rhode Island, and at a few other points. The editors of these papers tell us that in other colonial records, published by the Massachusetts Historical Society, are to be found many fragments of biography, of local lescriptions, and sketches of missionary effort for the Indians, which give evidence alike of patient labor in their behalf, and of the disuragement and failure which overshadowed the results. Schools were established for Indian children, and guardians and overseers were sent into the bounds reserved for natives to teach them agriculture and profitable industry. About the time of Sewall's visit to Martha's Vineyard and Nantucket there were a score of graduates from Harvard who, as preachers, were capable of conducting religious services in the language of the natives, while eight of the red men had been trained and ordained to the work of the ministry to their own people. The kind-hearted Sewall distributed among those whom he saw his private gifts, and gave or promised religious books to the children who he thought would value what he so prized. The poor waif whose death by drowning he relates sympathetically in his journal was one of many of his race at the time, scattered over the farming towns of New England, who did laborious and menial service for the whites for a bare subsistence. But contact and intimacy with the white man and civilization, in almost every case, demoralized the Indians, robbing them of such wild manhood as they might have had in their forest life, and leaving them degraded and humiliated in the presence of a superior race. No community of Indians, in New England at least, has ever advanced much beyond a stage of semi-civilization, and it is very uncommon in that region to encounter a single one of unmixed native blood. The negro blood predominates among those who represent the aboriginal red men of New England. The sketches from life given in the Sewall diary and in other papers printed by the Historical Society, though showing the devotedness of such sanguine friends of the Indians as Shepherd, Ellot, Cotton, Gookin, the Mayhews, and others, seem to have been regarded by contemporaries as overstating and overcoloring the real truth. The prevailing opinion was the cheerless one that labor in behalf of the Indian was wasted. An abject demeanor, a spiritless dejection, a squalid mode of life in a hovel, so surrounded and surcharged with mud and filth as to be more forbidding than a smoking wigwam, and subsistence on the dole of pauperism, marked the aspect and condition of the former lords of the soil in presence of those who had supplanted them. M. W. H.

Tyndail's Latest Essays.

The Messrs. Appleton have reprinted in book form a number of essays by Dr. TYNDALL, which treat of the Floating Matter of the Air, and its relation to putrefaction and infection. These papers will be read with keen interest by those who appreciate the importance of the services rendered by the antiseptic system of surgery based, as that system is, on the germ theory of disease.

From various allusions to it in the course of these papers, we may collect Prof. Tyndall's definition of the germ theory. In a preliminary essay on the floating matter of the air he points out that there is no respite to our contact with the substances thus held in suspension. We not only suffer from their mechanical irritation, but there is a growing belief that a portion of this floating matter lies at the root of a ciasa of disorders most deadly to man. What is this portion? Some time ago the current opinion was that epidemic diseases generally were propagated by a kind of malaria which consisted of organic matter in a state of motor decay; that when such matter was taken into the body through the lungs, skin, or stomach, it had the power of spreading there the destroying process by which itself had been assailed. Such a power, It was alleged, was visibly exerted in the case of yeast. Here a little leaven was seen to leaven the whole lump -a mere speck of matter in this supposed state of decomposition being apparently competent to propagate indefinitely its own decay. In 1836, however, an unexpected reply was given to this question by Cagnlard de la Tour, who discovered the yeast plant, a living organism which, when placed in a proper medium, feeds, grows, and reproduces itself, and in this way carries on the process which name formentation. It appeared then that the phenomenon exhibited by yeast was one of active life instead of motor decay; that, in other words, fermentation was connected with organic growth. Prof. Tyndall goes on to show that Schwann of Borlin (who had discovered the yeast plant independently about the same time) announced in 1837 another important fact, viz., that when a decoction of meat is effectually screened from ordinary air, and supplied solely with calcined air, putrefaction never sets in. Putrefaction. therefore, he affirmed to be caused not by the air, but by something in the air which could be destroyed by a sufficiently high temperature. outcome of Schwann's researches were confirmed by the independent experiments of Heimholtz, Ure, and Pasteur, while other methods pursued by Schultze and by Schroeder and Dusch led to the same result. Nevertheless, as regards fermentation, the minds of chemists, influenced probably by the great authority of Gay-Lussac, fell back upon the old notion of matter in a state of decay. It was not, they said, the living yeast plant, but the dead or dying part of it, which, assailed by oxygen, produced the fermentation. Later experiments have shown, however, that, as a matter of fact, when the plant is killed the ferment disappears. The inference is unavoidable that the real ferments are living organisms which find in fermentable substances their

necessary food. Side by side with these researches and discoveries, and fortified by them and others, has run the germ theory of epidemic disease. The otion was expressed by Kircher, and favored by Linneus, that epidemic diseases may be due to germs which float in the atmosphere, enter the body, and produce disturbance by the development within the organism of parasitic life. The strength of this theory consists in the perfect parallelism of the phenomena of contagious disease with those of life. As a planted acorn gives birth to an oak competent to produce a whole crop of acorns, each gifted with the power of reproducing its parent tree. and, as thus from a single seedling a whole forest may spring, so, it is contended, these epidemic diseases literally plant their seeds. grow, and shake abroad new germs, which, meeting in the human body their proper food whole populations.

and temperature, finally take possession of Some experiments made by Pastour in 1860. indicated that germs are not equally diffused brough the air, but exist in a segregated, non-. linuous way, in the form of bacterial clouds. He would sometimes, for instance, open a flask containing water of yeast in the midst of a acterial cloud, when he would obtain life, and omstimes in the interspace between two souds, when he obtained no life. Prof. Tyndail has recently instituted a number of elaborate experiments, which have confirmed Paseur's conclusion in regard to the existence of bacterial clouds in the atmosphere. It would seem that certain caprices in the behavior of dressed wounds may possibly be accounted for in this way. In hospital practice we should expect that the openius or a wound during the passage of a busterial cloud would have an ffect very different from the opening of it in the interspace between two clouds.

The application of the germ theory to surgery by Prof. Lister of Edinburgh is carefully de scribed in one of the essays in this volume. are is taken that every portion of tissue laid bare; by the knife shall be defended from germs; so that if they chance to fall upon the wound, they shall be killed as they fall. With his object in view, Prof. Lister showers upon his exposed surfaces the spray of dilute car-

bolic acid, which is particularly deadly to the germs, and he surrounds the wound in the most careful manner with antiseptic bandages. The result has been in his hospital practice that even in the neighborhood of wards where death was rampant from pyremia, erysipelas, and hospital gangrene, he was able to his patients absolutely free these terrible scourges. At St. Bartholomew's Hospital Mr. Callender employs the dilute carbolic acid without the spray; but as regards the real point aimed at-the preventing of the wound from becoming a nidus for the propagation of septic bacteria-the practice in both hospitals is the same. In connec tion with this topic, Prof. Tyndall reminds us that surgery is acquainted with a class of wounds in which the blood is freely mixed with air that has passed through the lungs, and it is a most remarkable fact that such air does not produce putrefaction. Why is it that air introduced into the pleural cavity through a wounded lung should have such wholly different effects from that penetrating from without through a permanently open wound? Prof. Lister has said that he found himself entirely unable to answer this question till he heard of 'the germ theory of putrefaction, when it at once occurred to him that "it was only natural that the air should be filtered of germs by the air passages, one of whose offices is to arrest inhaled particles of dust, and prevent them from entering the air cells." Dr. Tyndall pronounces this a surmise which bore the stamp of genius, and which only needed verification. If for the words "it is only natural," Prof. Lister had been authorized to write "it is perfectly certain," the dem onstration would have been complete. Such complete demonstration is now furnished by experiments made by Dr. Tyndall with a beam of light, the processes and results of which are set forth in an essay on "Dust and Disease, the first of the five papers collected in this

A Sketch of English Journalism In a little volume published in "Cassell's Popular Library," Mr. CHABLES PEBODY gives us some account of English Journalism and the Men who have Made R. There is, unfortunately, no such thing in existence as an exhaustive history of the English press, and we are disposed, therefore, to welcome the present essay in that direction, incomplete as it is in several particulars. The compiler of this book throws but little light on several questions of interest such as the circulation and receipts from advertising of the great London journals, the number of writers employed on editorial staffs. the method of paying them-whether by space or salary-and the amounts which the most industrious and capable are able to earn. Even on such topics, however, there are a few hints scattered through these pages, and there is a good deal of general information not elsewhere accessible in an equally convenient form.

Mr. Febody thinks it questionable whether

at present, the editorial staff of the Times is in any respect superior to the staff of the Standard, of the Daily News, the Daily Telegraph, or the Morning Post. But he says that somehow the prestige of the paper gives to an article appearing in the Times a weight and authority which, whatever may be the intrinsic merit of the writing, it would never possess in the Daily News, in the Standard, or in the Daily Telegraph. This fact was once attested, in a very striking way, by the proprietors of the Morning Herald, who, thinking that nothing was needed but equal energy, enterprise, and skill to make their paper all that the Times was, determined to secure these elements of success without counting the cost. They accordingly paid for every kind of news at a higher rate than the Times, doubled the fee for leading articles, and, ascertaining as far as possible the name of every contributor whose writing in the Times was conspicuously clever, offered five guineas an article where till then the Times had paid no more than two guineas, in order to induce the writer to transfer his contributions to the Morning Herald. These tactics were so far suc cossful that they doubled the circulation of the paper, increased the profits out of all proportion to the expenditure, and enabled the proprietors. who had quarrelled among themselves, to sell the paper for three times the amount they could have sold it for before, Mr. Pebody has no doubt that had the mode of management which led to this result been carried out as part of a system instead of being adopted as a spurt the Morning Herald might to-day have been standing at the head of the British press. He points out, nevertheless, that the contributions of the very men whose articles in the Times had invariably been read with interest and admiration made nothing like the same sensation in the Morning Herald though they materially increased its circulation. The result was that the Times no sooner raised the fees paid for leading articles to the same, or nearly the same level, than it speedily recovered the greater part of its former staff. Even now, when the influence of the Times is relatively much less than it was fifteen years ago, it is still considered in journalistic circles a distinction to write for it.

The Times during the greater part of Mr. Delane's editorship had the field practically to itself. But a great change has taken place in this respect since the abolition of the paper duties, and the present editor, Prof. Chenery, has to face rivals on every hand-rivals at once rich powerful and enterprising. At the time of the repeal of the paper duties there were three newspapers in existence which were destined to compete with the Times, but which no one then dreamed of coupling in the same sentence, viz., the Standard, the Daily News, and the Daily Telegraph. The Standard had been in existence for a couple of generations. and had been at one time, as the champion of the Protestant interest, both popular and powerful: but in 1861 its proprietor was in the bankruptcy court, and the paper was apparently drowning in a sea of troubles. The Daily News was only about fifteen years old, but, ex cept that it was not yet in bankruptey, it eemed to be in a scarcely better plight than the Standard. The Daily Telegraph was still in its sickly infancy, having just completed the first five years of its existence, and nobody supposed that it would live through another lustrum. When the Standard went into bankruptevit

who, if he knew nothing of newspapers, knew enough of the principles of success in business to know how a newspaper must be conducted if it is to flourish, and the Standard is now what Mr. Johnstone made it by his skill and sagacity. Its growth has been very slow in comparison with that of some of its contemporaries, but to-day it has not many rivals in enterprise and success. Its staff, with three or four exceptions-Col. Brackenbury, Alfred Austin, T. E. Kebbil, Capt, Henty, and Fred Boyle-is not a staff whose names are at all familiar to the public; but Mr. Pebody assures us that the Standard possesses leader writers, reviewers, art critics, special correspondents and a corps of Parliamentary reporters who are nota whit inferior to those of the Times, and in its editor, Mr. W. H. Mudford, it possesses a journalist who, clothed with absolute power over the policy and management of the paper. knows how to use that power with intelligence decision, and energy. Up to a year or two ago it was a constant repreach to the Standard that it had neither mind nor will of its own, that politically it was merely an echo of the Conservative leaders; but independence is the note of Mr. Mudford's management, and Conservatives now complain that you never know when you take up the Standard what it will say upon any of the topics of the day-whether it will be Conservative or Liberal in its opinions. All that you know is that, like the Times, it will take a frank and independent view, that, outside of its own criticisms, you will find in its columns the latest and fullest telegrams from every part of the world, and that, next to the Times, it will contain the amplest reports of all the speeches of the day.

The Daily News owed its origin to Charles Dickens, who had written a few articles in the

willing to pay at that rate for these special articles, but he hesitated to pay the same price for a series of articles that Dickens proposed to ontribute, and Dickens, refusing to write at all unless he was paid at this rate or more, began to turn over in his mind the idea of a newspaper of his own. The result was the publication of the Daily News. Messrs. Bradbury and Evans entered into the scheme with enthusiasm, taking a large interest in it themselves, and inducing Sir Joseph Paxton and others to take still larger shares. All the preparations were upon a scale of munifleence then unexampled. The ovinces were swept for skilful reporters, and the ablest men in the Liberal ranks were cured as contributors. The salary of the editor was fixed at \$10,000 a year, and all the rest of the salaries were in proportion, one clever writer being offered \$3,000 a year for a ouple of leading articles a week. The appointnents of the office, it was said, rese embled those of a Duchess's boudoir, the desks being of resewood and the inkstands of silver, and the books of reference being all bound in Russia and gold. The porters were all in livery, and the story ran that the letters to the editor were presented on a silver salver. The position of editor, however, lost all its charm for Dickens the instant the work began to pall, and on Feb. 7, 1846-about a fortnight after the first appearance of the paper-he demanded to be relieved from an intolerable position. John Forster, at that time editor of the Examiner, was induced to take Dickens's chair, but before the year was out Knight Hunt had relieved Forster of the editorship, and had gathered around him a staff of contributors second to none then to be found in London-Douglas Jerroid, McCullagh, Torrens, Harriet Martineau, and Dr. Lardner. From this time forward the Daily News lacked nothing that a newspaper ought to possess. Its articles were clever and brilliant, its reports ample and accurate; its Indian intelligence, secured at great cost, was not less prompt than that of its rivals. Still the paper did not take, the publie declined to read it at any price, and at least a million dollars are said to have been sunk in the publication. When the paper duties were repealed, however, the drain was stopped, and the paper rose in circulation; but the turning point in the history of the Daily News was the transfer of the property from the original proprietors to a new set of men. The latter brought fresh capital into the concern, reorganized and strengthened the staff, reduced the price to a penny, and, the Franco-German war breaking out soon afterward, sent into the field a corps of special correspondents, including Archibald Forbes, MacGahan, and Skinner, who were unrivalled in energy and brilliancy. The effect of this new policy was soon seen. The Daily News sprang at a bound into the front rank of the newspaper press, and the

Times found itself distanced in respect of news from the seat of war. The reputation which the Daily News won by its war correspondents in 1870 it managed to keep all through the Russian campaign in Turkey, the Indian famine, the Afghan campaign, and the Zulu war. We are told that William Black, Robert Giffen, Edmund Yates, George Macdonald, and Westland Marston have all been contributors to the Daily News, and that its present staff of leader writers includes Andrew Lang, G. Saintsbury, Grant Allen, Moy Thomas, William Senior, and H. W. Lucy. Acording to the complier of this volume, the present editor of the Daily News, Mr. Frank H. Hill, has well maintained the high literary character which the paper acquired during

he editorship of Mr. Thomas Walker The Daily Telegraph was started by Col. Sleigh n June, 1855, and was first published as a single sheet at twopence. The circulation was small and the advertisements were but few when the paper came into the hands of the Lawsons and the Levys as a bad debt. Mr. Levy at once reduced the price of the paper from twopence to a penny, secured all the best telegraphic news, strengthened the corps of Parliamentary reporters, and obtained as contributors and critics men who were at least equal to those upon the staff of either of its contemporaries-such men as Thornton Hunt, Edwin Arnold, G. A. Sala, Sutherland Edwards, and Godfrey Turner. The fruits of this policy were soon seen. The circulation quadrupled and the advertisements increased in proportion; but with all this the paper was published at a loss till Mr. Gladstone repealed the paper duty, which is said to have been equivalent to a present of \$60,000 a year to the proprietors of the Telegraph. \$60,000 were spent in the improvement of the paper, the articles becoming bolder and fresher, the telegrams fuller, and the reports ampler. The liveliness, sparkle, and vigor of its style soon distinguished it from all its contemporaries except the Times, and the Times, published at urpence, hardly came into competition with the Telegraph, which was published at a penny. The American civil war did much for the Daily Telegraph; the war of 1866 did more; but the war of 1870 did most, for all through the latter contest the Telegraph was well served by a staff of special correspondents, who, by freely using he telegraph, raised the paper to a level with

the best of its contemporaries.

Mr. Pebody has a good deal to tell us about such evening newspapers as the Pail Mail Gaefte and its Conservative rival the St. James's Gazette, about the so-called society weeklies, Vanity Fair, the World, Truth, and the Whitehall Review, and about the provincial press. Upon all of these subjects the inquisitive reader will find some, if not all, of the information be desires, but we have preferred to dwell mainly on those great morning newspapers of the metropolis, which, of all journals printed in the English language, are the most widely read.

There is no subject connected with the current history of this country which it more tally concerns us to thoroughly understand than the decay and close approach to annihilation of our merchant navy and ocean-carrying trade. Here is a branch of our domestic industry which only a quarter of a century ago ranked next in importance to agriculture, and which could it be resuscitated, might again contribute in like proportion to the national wealth. How the destruction of our merchant marine was brought about, and what changes fell into the hands of a professional accountant, in the Federal statutes and the national policy would be calculated to revive it, are questions discussed with much neutoness, and with breadth and knowledge, by Mr. David A. Wells, in a series of papers which are now reprinted in book form by the Putnams. Even those who do not agree with the views of Mr. Wells in relation to free trade, and who therefore might decline to sanction the drastic remedy which he suggests for the decadence of our shipping interest, will derive profit from his minute and exhaustive exposition of the phases of development, prosperity, and decline through which our merchant marine has passed.

There is a widespread impression that the

decline in our shipbuilding and carrying trade upon the ocean began with the civil war and was occasioned by the depredations of the Confederate cruisers. Mr. Wells thinks that the influence of these agencies has been greatly exaggerated. They simply furthered a process of decadence which had previously set in, and which, in his opinion, would have progressed just as far as it now has although no war had intervened. He discerns the first symptoms of decline as early as 1856, in the falling off which then began in the sales of American tonnage to foreigners, the reduction being from 65,000 in 1855 to 17,000 in 1860. It is true that during the war the transfers to American onnage again increased very largely. These transfers, however, were not in the nature of ordinary business, but for the sake of obtaining immunity from destruction upon the high seas. The year 1856 also marks the time when the growth of our foreign steam shipping was arrested and a retrograde movement inaugurated. It is further pointed out that the total tonnage of every description built in the of ten guineas each. The editor was quite | year 1855 American vessels carried 75.5 per | rather large dimensions were planed to be add sent per rather large dimensions were planed to be add sent per rather large dimensions were planed to be add sent per rather large dimensions were planed to be add sent per rather large dimensions were planed to be add sent per l 1855 to 212,892 in 1860, a reduction of

cent, of the value of the exports and imports of the United States. Thenceforward the proportion steadily declined till it had dropped to 65.2 in 1861, the year of the outbreak of the war. The change in the same direction which has taken place since 1861 constitutes of course, the most impressive illustration of decadence and wreck. Of the merchandise ax ported and imported during the fiscal year 1881 American vessels carried only 16.2 per cent and foreign vessels 83.8 per cent. The shrink age is the more remarkable because the business of our shipping ought to have largely increased during the period in view seeing that the opportunities for business had been greatly widened. The total value of ou exports and imports had, in fact, increased from \$762,000,000 in 1860 to \$1,676,000,000 in 1881. By this enormous increase in the foreign commerce of the United States every maritime nation of any note has profited, with the exception of our own. To cite an impressive instance, we mention that during the year 1880 there was shipped from New York to Europe grain to the extent of 72,276,000 bushels, but no a single bushel of this enormous bulk found

transportation in an American vessel, Mr. Wells concurs with other careful students of the subject in considering the substitution of steam for wind as an agent for ship propulsion the primary cause of the decay of our merchant pavy. This was the primary cause but it remained inoperative so long as wood was mainly used in the construction of steam ships. But experience taught builders that iron vessels are better adapted to withstand the strain of heavy steam machinery, and also that, from lack of the necessary rigidity, the application of the most economical method of steam propulsion-namely, the screwis impracticable in the case of wooden vessels of large capacity. This lesson seems to have been learned betimes by American shipbuilders and shipowners, but they were unable to turn it to account because the means and appliances for the construction of iron vessels did not exist in the United States. As early as 1857 Capt. John Codman predicted in the New York Journal of Commerce that iron screw steamers would supersede all other vessels for the foreign carrying trade, and that England, being able to construct such steamers more cheaply than any other country, would inevitably acquire a monopoly of ocean steam navigation unless such a change was made in our laws as would enable American merchants to buy English steamers.

Mr. Wells demands a repeal of our navigation laws as the first step toward reviving American shipping, but he is far from thinking that such a measure would suffice to recreate our commercial marine. There are other obstacles to be surmounted, such as State taxation, tonnage taxes, consular fees, and exorbitant pilot charges. Whether Congress, under the power conferred upon it by the Constitution to regulate commerce, can exempt vessels engaged in foreign or inter-State carrying trade from State or municipal taxation seems to be an open question—the decisions of the United States Supreme Court looking both ways. That the desired end could be reached by the education of public opinion has been made plain by the action of the States of New York and Massachusetts, which, in 1881 exempted ships owned by their citizens, and engaged in foreign trade, from all direct State taxation. The tonnage tax, at all events might be repealed, and Mr. Wells would abol ish compulsory pilotage, and so reduce the legal fees for pilotage that they should not be in excess of those charged in British and other European ports. He would also cut down all expenses connected with the hiring or discharge of seam 1, consular charges, and the like to the level of those imposed by other nations. The expedient of subsidies and bounties gets no countenance from Mr. Wells, but he would have Congress treat steamships precisely as railroads are treated, a fair compensation being given them for carryng the mails, Were all these things done, the author has no doubt that our merchant marine would begin to revive; but it will never, in his opinion, attain the measure of prosperity which it enjoyed in 1855 until the tariff has been reformed. We suspect, however, that the friends of American shinbuilding would consider themselves fortunate if they could accomplish the first step of the many enumerated by Mr. Wells, to wit, a repeal of our navigation laws.

MR. HAWTHORNE'S ALLEGED NOVEL.

A Letter of Explanation from Mr. Lathrop TO THE EDITOR OF THE SUN-Sir: An editorial in The Sun of Aug. 20, on the purposed publication of a manuscript by Nathaniel Hawthorne, under the title "Dr. Grimshawe's Se cret "seems to me, though showing careful consideration, to misapprehend some of the facts

in the case. Referring to Mrs. Lathrop's letter in the Bos ton Advertises of Aug. 15, you say: "It unquestionably leaves upon the mind the impression that, In her judgment, the publication of the forthcoming novel under her father's name would be an unscrupulous forgery," What she said respecting that novel, or, more properly, sketch, was this: "It cannot truthfully be published as anything more than an experimental Mrs. Lathron never doubted that Mr. Julian

iragment.

Mrs. Lathroo never doubted that Mr. Julian Hawthorne had in his hands a genuine manuscript sketch by her father, for she sent the said sketch to him some ten years and. But heither was there any doubt that it was a fragmentary production, since Mrs. Lathrop and I had read it before despatching it to Mr. Hawthorne, and knew its character. Mr. Hawthorne, and the Nathana papers that sent was precisely one unpublished fragment of fiction and the tonor of it resembled that ascribed to the writing now promised for publication, except that it was far from a "complete vemance." Nor could the syde and treatment, in this manuscript, in her judgment, rightly be called finished even so far as it went if compared with the volumes given to the world by the author as his malured works. There existed one other meonplete study for a fletion, in the form of a manuscript book which Mrs. Lathrop shid retains. These were the only two partial fictions extant in 1872, when the papers were separated, and there was no compete fletion. It is like possible that Mrs. Lathrop should confound the manuscript book which she now has with the sketch the declaration from Mr. Julian Hawthorne in the Adventor's Schelens platned that it had been known to us to 1872, instead of being lately discovered, and that if and scene to caroborate Mrs. Lathrop's he existed the book.

Cernain missiatements had been rande, and the book. o book. Certain missintements had been made and

Certain missiatements but been made and to countered them it was necessary to give equal publicity to a denut. In this we immediate a operation could be sought from Mr. Julian reactions because he had never referred to the manuscript in any way, nor rold Mrs. Lathrop of his intention to behad from the Mesers. Osgood because they explicitly discussing to Mrs. Lathrop and myself all definite knowledge of the manuscript. Thirty-six hours after that discussing a declared account of the latery discovered novel "came out in the Adversary seemingly derived from the publishers, Mesers of Security of the manuscript of the publishers Mesers of the manuscript of the publishers Mesers of the unique and this account full of true was not discovered or well as account, full of true was not discovered on Mrs. Lathrop The discovered the unique sent disty of setting the matter straight devolved on Mrs. Lathrop The should be straight devolved on Mrs. Lathrop The should be become a party to misrepassed at the should be expected to condomin become a party to misropress the mobile, on discovering them, inglit fairs be expected to condom.

It was no part of for dury to set forth a theory as to how the measurements of the surply of rected known errors. That he follows the surply of rected known errors. That he follows he had not although the following a few countries to the lake them as indicating a controversal motive. She has no quarted with her brister Schools her palan assertion of facts, it which she accused no one, be interpreted as making charge of forgery against Mr. Julian Harthorie. That charge was not expressed or to to the desired of the surple of the

The Cost of Cremation in Milan.

1882

From the London Touth. Dr. Gaetano Pini of Milan has just been en s of these remains were placed in